

**SUMMARY OF THE
PROFICIENCY TESTING COMMITTEE MEETING
MAY 2, 2000**

The Proficiency Testing Committee of the National Environmental Laboratory Accreditation Conference (NELAC) met by teleconference at 1 p.m. on Tuesday, May 2, 2000. The meeting was led by its chair, Ms. Barbara Burmeister of the Wisconsin State Laboratory of Hygiene. *The main purpose of this meeting was to review proposed changes to Chapter 2 and to discuss Transition Committee issues, new comments, and open committee positions.*

INTRODUCTION

Ms. Burmeister reviewed the minutes from the meeting in Denver, CO, on April 11-12, 2000. The committee agreed that the minutes are final. The status of the Action Items is as follows:

- C Ms. Burmeister contacted the nominees for the open committee positions and forwarded completed nomination forms to committee members.
- C Mr. Chuck Wibby developed language for Section 2.2.2 and Appendix D.0.
- C Ms. Burmeister will write a letter to the NELAC Board of Directors recommending the American Association for Laboratory Accreditation (A2LA) as a Proficiency Testing Oversight Body/Proficiency Test Provider Accreditor (PTOB/PTPA) for the National Environmental Laboratory Accreditation Program (NELAP) sometime this week.
- C Ms. Burmeister has contacted Dr. Marcia Davies of the Program Policy and Structure Committee regarding Chapter 1 and proposed the addition of “matrix” to field of accreditation.
- C Mr. Wibby will develop an errata sheet for the February 2000 PT Fields of Testing tables and send to the committee.
- C Ms. Burmeister will send changes to the PT Process flowchart to Mr. Larry Jackson for correction.
- C Ms. Burmeister revised the PT Frequently Asked Questions (FAQs) and sent them to the committee for review. These will be discussed in today’s meeting.
- C Ms. Burmeister will contact Ms. Lisa Doucet to see if the PT FAQs can be included in the NELAC VI participant information.
- C Ms. Burmeister will email Dr. Faust Parker for comment resolution regarding Appendix F.
- C Ms. Burmeister will draft a letter to Mr. Doug Faison of the National Institute of Standards and Technology (NIST) requesting a timeline for oversight of the PT program.
- C Ms. Burmeister has begun writing the report for the Environmental Laboratory Advisory Board (ELAB) on problems and issues related to the NELAC PT program.

PROPOSED CHANGES TO CHAPTER 2

Ms. Burmeister reviewed the proposed changes to Chapter 2 (see Attachment C) which were discussed at the meeting in Denver. Appendix G (Radiochemistry) and Appendix H (Field Air Measurement) will be presented for vote at NELAC VI. Ms. Burmeister said that she will email Appendix H to the committee.

In their review of the proposed changes, Mr. Wibby suggested the addition of the words “or multimodal” to the new sentence in Section C.4. The sentence would now read, *“If bimodal or multimodal distribution is found and acceptance criteria are calculated using robust statistical analysis, data should be scored by method specific robust statistical analysis.”* The committee agreed to this change.

Mr. Jackson also suggested that information about preparation method be included with the analytical result. He said that this data may be critical if there are problems with failures (e.g., high bias due to prep. method). Ms. Rae Ann Haynes commented that Oregon Department of Environmental Quality (DEQ) is not currently accrediting by preparation method, but they are tracking the information. The committee did not agree to add the requirement for preparation method at this time. However, Mr. Jackson offered to research this further. He will evaluate data sets for both solid waste and water. The committee will continue discussions on the topic at a later time.

FREQUENTLY ASKED QUESTIONS (FAQs)

Ms. Burmeister reviewed the updated PT FAQs. Changes were suggested for FAQs 9 and 10 and Ms. Burmeister will make these revisions. An additional FAQ (number 11) was drafted to explain how Accrediting Authorities will handle PTs in situations where a field of accreditation (program/method/analyte) may apply to more than one matrix. However, there are problems related to Resource Conservation and Recovery Act (RCRA) samples (water vs. solid). Consistency issues need to be resolved before the PT Committee releases a FAQ.

QUICK RESPONSE PT

A question was received from Ilona Taunton, Director of Quality Assurance, TestAmerica Incorporated. The question was whether or not “quick turn studies” were acceptable for NELAC accreditation purposes. “Quick turn” or “quick response” PT studies are generally used to demonstrate corrective action. Mr. Wibby said that these types of samples are generally not acceptable for NELAC accreditation because they do not meet all of the NELAC requirements. The laboratory must inform the PT Provider in advance that the sample they order is to be used for NELAC accreditation. It is also important to note that NELAC prohibits the reuse of PT samples. The committee was in agreement on the subject.

In summary, a PT sample is acceptable for NELAC accreditation if it meets all the NELAC requirements. Quick response PTs are generally not acceptable.

TRANSITION COMMITTEE ISSUES

1) Ms. Burmeister received an email from Dr. Charles Brokopp regarding questions brought up during a meeting of the Transition Committee. For example, "Since laboratories often analyze PT samples for purposes other than accreditation, should the non-NELAP samples be used for accreditation? Should the results from all PT challenges be reported and entered into the NELAP database?" The committee responded that a laboratory must inform the PT Provider in advance if the sample is to be used for NELAC accreditation. In addition, only the results for analytes on the PT Fields of Testing list are reported to the Accrediting Authorities.

2) Another issue is the July 1, 2000 deadline for completion of PT studies. Ms. Burmeister has received numerous calls asking how many successful PT samples are required by a laboratory before July 1, 2000 to meet the NELAC standard requirements. This is still a pending issue. The Transition Committee has not yet made any recommendations to the Accrediting Authority (AA) group. The NELAP AA group will be discussing this during their meeting later today. It was recommended by the committee that the July 1, 2000 deadline for completion of PT studies is not tenable and should be extended.

3) There are no acceptance criteria for radiochemistry at this time in the EPA National Standards. Therefore, results from radiochemistry PT studies will not be used for accreditation purposes.

PROPOSED CHANGES TO PT FIELDS OF TESTING (FOT) AND FIELDS OF ACCREDITATION

During the committee's face-to-face meeting in Denver, they discussed all of the comments and questions directed to Chapter 2. Ms. Burmeister said that it quickly became apparent that both NELAP AA's and laboratories are very confused about the inconsistency between the fields of accreditation in Chapter 1 and the PT fields of testing in Chapter 2. In addition to the comments received, the committee discussed how to integrate the new Safe Drinking Water Act (SDWA) regulations (PT by method) into Chapter 2, questions received about laboratories being accredited for RCRA–water versus RCRA–solid, and Chapter 1's exclusion of matrix in accreditation.

After long discussions about these issues, the committee came up with a proposal that will affect both Chapters 1 and 2, and make them consistent.

C The PT Committee proposes to add "method" to the PT fields of testing so that the FOT would be "program - matrix - method - analyte."

C The committee will propose to Chapter 1 that "matrix" be added to the fields of accreditation resulting in "program - matrix - method - analyte."

The committee came up with two options for implementing this change so it can be voted on at the annual meeting. (This issue can also be discussed during a special session at NELAC VI for fields of testing.)

Option 1: Add "method" to the PT FOT in Chapter 2 and "matrix" to fields of accreditation in Chapter 1. Both chapters would be consistent and we would ask the NELAC Board of Directors for an accelerated implementation date if the Program Policy and Structure (PS) Committee agrees.

Option 2: If the PS Committee does not want to make the change to "program - matrix - method - analyte", the PT Committee would still propose adding "method" to the PT FOT, but delete "matrix" so the field of accreditation and the PT FOT are still consistent. The PT Committee would then propose to add language that states "PT sample matrix shall be appropriate for the intended use of the method."

Ms. Burmeister has sent this request to Dr. Marcia Davies (with copies to the PT Committee, Dr. Mike Miller of the Regulatory Coordination Committee, and the NELAC Board of Directors).

PT FIELDS OF TESTING AND ACCEPTANCE CRITERIA UPDATE

Comments were received from Mr. Tom Coyner about the PT program implementation. One of his concerns was the list of PT Fields of Testing and Acceptance Criteria which were presented at the NELAC V interim meeting. He said that although the NELAC standard authorizes the PT Committee to develop acceptance limits, it does not contain the criteria that the committee would use to develop these essential criteria. He also noted that the requirements for the USEPA Water Supply (WS), Water Pollution (WP), and Discharge Monitoring Report Quality Assurance (DMRQA) programs which are being used as NELAC standards were explicitly incorporated into Appendix C of the standards. He stated that the proposed acceptance limits should also be presented for vote at the annual meeting as a formal part of the standards.

Mr. Wibby suggested that the committee document its procedure for adding analytes to the FOT list and set a policy for how the committee addresses requests for additional analytes. He agreed to draft such a document at Ms. Burmeister's request. Mr. Matt Caruso agreed to write a historical perspective on the development of the PT acceptance criteria for the current analytes found on the PT FOT lists.

Mr. Coyner pointed out that the proposed acceptance criteria for solid matrix samples are incomplete. The guidelines suggest that the laboratories be evaluated based on the mean of the data set ± 3 standard deviations. However, he pointed out that the proposed guidelines do not require any minimum number of valid data points. The committee acknowledged that the requirement for 20 valid data points was taken out of the standards. Mr. Wibby's errata sheet will cover this topic.

Some other concerns from Mr. Coyner have already been addressed by the committee in their letter to the Board of Directors (requesting A2LA as a new PTOB/PTPA) and letter to NIST (requesting a timeline for oversight of the PT program).

OTHER COMMENTS

A question was received from the Colorado Department of Health, about remedial PT sample composition. For multi-analyte methods, a PT sample needs to contain a certain percent of the analytes, as specified in the standards. The question was asked, if a lab fails one of the analytes, how

can it know that the same analyte is present in the “mix” of the next PT so that it will count for accreditation of this particular analyte? The PT Committee responded that the laboratory must analyze a PT sample that could contain the analyte, but it does not have to actually be there. If the analyte is not present and the lab reports it as “0,” “below detection limit,” or “not detected” this is considered a correct response.

Comments were also received regarding an attestation requirement. The committee responded that this is not a requirement for NELAC.

Ms. Jeri Long submitted a question about the NELAC PT Fields of Testing List. It came to her attention that a provider had interpreted the “Sect. 2.0” in the “PTOB/PTPA” column as meaning that the analyte did not have to be in the PT sample. Ms. Long said that she disagreed with this interpretation and thought this column was simply an indication of oversight because NIST accreditation only covers certain analytes. The PT Committee agreed with Ms. Long’s interpretation and will follow up with the PT provider.

AGENDA FOR NELAC VI

Ms. Burmeister reviewed the proposed agenda for the PT Committee meeting at NELAC VI. The committee is scheduled to meet on Monday, June 26, 2000 from 1:30 p.m. to 5 p.m. The committee intends to spend the first half of the meeting reviewing proposed changes to the standard. After the break, they will open the meeting for questions, comments, and discussion about the interpretation and implementation of the NELAC PT program.

UPDATE ON NEW COMMITTEE MEMBERS

The committee has selected Dr. Anand Mudambi, U.S. Army Corps of Engineers, to be its new 5-year member and Mr. Ralph Obenauf to be its new 5-year contributing member. A replacement for Ms. Michelle Kropilak’s position has not been determined.

MISCELLANEOUS

Ms. Cindy Nettrour reported no updates for the Membership and Outreach Committee. There were no updates from EPA or NIST.

ACTION ITEMS

**PROFICIENCY TESTING COMMITTEE MEETING
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Item No.	Action	Date to be Completed
1.	Ms. Burmeister will email Appendix H to the PT Committee.	5/2/00
2.	Ms. Burmeister will insert “or multimodal” to the new sentence in Appendix C.4.	
3.	Mr. Larry Jackson will research data related to preparation methods and pass/fail rates for solid matrix analytes.	
4.	Ms. Burmeister will email Mr. Jackson with requested changes to the PT Process flowchart and then include the flowchart in the FAQs.	
5.	Ms. Burmeister will make changes to FAQs 9 and 10 as discussed in today’s meeting.	
6.	Ms. Burmeister will drop FAQ 11.	
7.	Ms. Burmeister will attend the Accrediting Authorities meeting and respond to issues on behalf of the PT Committee.	5/2/00
8.	Mr. Matt Caruso will draft a historical perspective on the development of the PT acceptance criteria.	
9.	Mr. Chuck Wibby will draft a procedure for adding new analytes to the Fields of Testing list.	
10.	Mr. Chuck Wibby will draft an errata sheet and send it to Ms. Burmeister.	
11.	Ms. Burmeister will pursue nominees to fill Ms. Michelle Kropilak’s position for the remainder of her term.	

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PROFICIENCY TESTING COMMITTEE MEETING
MAY 2, 2000

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**Proposed Changes to NELAC Chapter 2
Proficiency Testing
(In addition to changes proposed for NELAC Vi)**

1. Section 2.0, Interim Standards

Delete this entire section

2. Section 2.1.3 - Both of these options need to be added as proposed language:

Option 1:

If Chapter 1 adds "matrix" to field of accreditation, Section 2.1.3 will read as follows:

The PT program is organized by PT fields of testing. The following elements collectively define PT fields of testing:

- a) regulatory or environmental program, as listed in Chapter 1
- b) matrix type as defined in the glossary
- c) method
- d) analyte

Note: Laboratories are permitted to analyze and report multiple method specific results for the same analytes from one PT sample.

Option 2:

If Chapter 1 does not add "matrix" to field of accreditation, Section 2.1.3 will read as follows:

The PT program is organized by PT fields of testing. The following elements collectively define PT fields of testing:

- a) regulatory or environmental program, as listed in Chapter 1
- b) method
- c) analyte

Note: PT sample matrix shall be appropriate for the intended use of the method. Laboratories are permitted to analyze and report multiple method specific results for the same analytes from one PT sample.

3. Section 2.2.2 - the section will now read as follows:

The PTOB/PTPA establishes and implements a program to accredit PT Providers and to monitor accredited providers to ensure that their studies and practices meet all applicable standards. The PTOB/PTPA shall meet the requirements of Appendix D. Organizations meeting the requirements of this standard and its appendices, as determined by the NELAC Standing Committee on Proficiency Testing, may be nominated by the committee to the NELAC Board of Directors to be designated as a PTOB/PTPA. The NELAC Board of Directors which has the overall responsibility and authority for the supervisory, administrative and procedural duties

associated with NELAC as defined in Chapter 1 may approve or disapprove the designation of an organization as a PTOB/PTPA. The committee may also recommend to the NELAC Board of Directors that a PTOB/PTPA's designation be withdrawn for failing to meet the criteria in this standard and appendices. In all cases, the NELAC Board of Directors decision of the designation of a PTOB/PTPA may be reviewed by the NELAP Director. The final decision remains with the NELAP Director.

4. Section 2.3.1 - Create a new section "PT Provider Accreditation"

For all compounds/matrices for which NIST NVLAP accreditation is available, the PT Provider must be accredited by NIST NVLAP. The Provider's NIST NVLAP Scope of Accreditation must cover the specific PT samples being supplied to the laboratories. For all other programs and compounds for which NIST/NVLAP accreditation is not available, a provider of PT samples for NELAC accreditation must be accredited by an Proficiency Testing Oversight Body (PTOB)/PTPA that meets the NELAC PTOB/PTPA requirements contained in this Chapter and associated appendices. The NELAC Standing Committee on Proficiency Testing reviews the qualifications of all PTOB/PTPA organizations. The names of PTOB/PTPA organizations that meet the NELAC requirements are communicated to the NELAC Board of Directors and NELAP Executive Director by the NELAC PT Committee. A listing of organizations that meet the NELAC PTOB/PTPA requirements is available from the Chair of NELAC.

In addition to being properly accredited, the PT Provider must, upon request, submit to the laboratory and NELAP Accrediting Authorities written attestation that it complies with the relevant requirements of NIST Handbook 150, NIST Handbook 150-19, and EPA's National Standards for Water Proficiency Testing Criteria Document (dated December 1998 or later) and that the NELAP PT samples distributed to participating NELAP laboratories comply with all criteria published by the NELAC Standing Committee on Proficiency Testing.

Renumber all sections following the new section.

5. Section B.1.2 PT Sample Composition (delete "for Water Matrices")

PT Providers may choose to leave one or more.....matrices listed in the following: volatiles, semivolatiles, base neutral acids, pesticides, herbicides and haloaromatics/halocarbons.

Delete the sentence: "Analytes from different USEPA test program designations may not be combined."

Change a) to 1)

6. New section: B.1.3 PT Sample Matrix

Refer to the NELAC Glossary for definition of matrices. Note: There is not currently PT samples available for all matrices. Refer to the NELAC PT FOT lists for sample availability.

7. New section: B.1.4 PT Sample Composition for Solid Matrices

Soil PT samples shall be well-characterized natural soil and cannot contain 100% sand.

8. Section B.2.2 Quality Control Check of the Assigned Value

First sentence will now read: "The assigned value for every parameter in all PT samples where linear regression equations are used to establish the predictive mean shall be verified by analysis."

9. Section B.4 Stability Testing

The third sentence will now read: "The samples are considered stable for the period of the study if the mean analytical value as determined after the study for each parameter falls within the 95% Confidence Interval calculated for the prior to shipment verification testing used to establish the assigned value or 95% Confidence Limit consensus of the scored data."

10. Section C.4 - Insert sentence below between first and second sentence:

If bimodal or multimodal distribution is found and acceptance criteria are calculated using robust statistical analysis, data should be scored by method specific robust statistical analysis.

11. Section C.4.1 - Add sentence below to end of paragraph:

For any additional matrix or analyte groups added to the NELAC PT FOT by the NELAC PT Committee, laboratories shall complete two successful PT studies within 12 months of the date the additional groups were added.

12. Section D.0 - Add sentence below to end of paragraph:

Organizations meeting the requirements of this standard and its appendices, as determined by the NELAC Standing Committee on Proficiency Testing, may be nominated by the committee to the NELAC Board of Directors to be designated as a NELAP PTOB/PTPA.

13. Appendix G is new and ready for vote.

14. Appendix H is new and ready for vote.